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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,006

10/28/2003

Yutaka Shibahashi

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EXAMINER

HYLINSKI, ALYSSA MARIE

ART UNIT

PAPER NUMBER

3711

MAIL DATE

DELIVERY MODE

02/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,006

Applicant(s)

SHIBAHASHI ET AL.

Examiner

Alyssa M. Hylinski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/19/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6-7 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reid (4503177), Mullis (5436115), Gordon (2460221) and Tomonaga (2002/0114956). Reid discloses an element and a method for alternately expressing a color-memorizing photochromic function of the element (column 1 lines 6-21). The element has a photochromic layer that maintains a coloring state by developing a color through the irradiation of light at the appropriate wavelength such as in ultraviolet rays (column 3 lines 58-68, column 11 lines 9-16) and changes to a decolorized state through its de-colorization by the irradiation of visible light (column 1 lines 38-46). The coloring state would be visible in well lit areas (column 11 lines 9-16). The

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photochromic layer can be coated on a substrate (column 3 lines 52-64) and has pigments or other additives that are allowed to coexist therein (column 3 lines 58-64). Mullis discloses a sheet or film toy element having photochromic properties on which templates can be arranged to create interesting visual displays (column 19 line 67 – column 20 line 4 and column 20 lines 29-50). It would have been obvious to one of ordinary skill in the art from the teaching of Mullis to utilize the element of Reid as a toy element for placing templates in order to create an interesting and visually appealing device that could entertain a user. Gordon discloses a method for alternately expressing a luminescent function in a toy element by arranging a sheet-shaped means (25) under a contacted or non-contacted condition (Figs. 3 & 4) and wherein the sheet-shaped means contains a light-shading pigment (column 2 lines 54-57) capable of shading at least ultraviolet rays (column 2 lines 54-60 and column 3 lines 1-2). The toy element has a light effected layer (13) coated on a sheet (12) which is illuminated (column 2 lines 1-4) through the irradiation of ultraviolet rays or sunlight containing ultraviolet rays by means of an ultraviolet irradiator (column 2 lines 5-7) and can be changed into a non-illuminated state by the irradiation of visible light when the sheet-shaped means contacts the toy element thereby cutting off the ultraviolet rays and causing irradiation of visible light (column 3 lines 7-16). Although, Gordon does not disclose a photochromic element it does disclose a toy using an element that is activated or deactivated in response to different lights and as such teaches the use of a sheet-shaped means for causing a change in a light sensitive element by affecting the light to which the element would be exposed. It would have been obvious to one of

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ordinary skill in the art from the teaching of Gordon to use a sheet-shaped changing means with the device of Reid and Mullis in an attempt to provide an improved toy device, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. Furthermore, it would have been obvious to utilize the sheet-shaped means to change the effect of a light sensitive material toy such as the light sensitive photochromic toy element of Reid and Mullis for the predictable result of influencing the visual effect of the device. The combination as described allows for the sheet-shaped means to function as a color-changing means to help maintain the changed states of the element by influencing the type of light the element is subjected to so as to express a function to memorize and maintain coloring and decolorizing states alternately. The references disclose the basic inventive concept, substantially as claimed, with the exception of the photochromic layer containing a diaryl ethene photochromic compound. Tomonaga discloses that diaryl ethane is an organic compound that exhibits photochromic properties (page 1 paragraph 4). It would have been obvious to one of ordinary skill in the art to use diaryl ethene as the photochromic compound since it has been held that a mere selection of known materials on the basis of suitability for the intended use would be entirely obvious. *See in re Leshin, 125 USPQ 416 (CCPA 1960)*. With regard to claims 6 and 7 and the photochromic layer including a thermoplastic resin and the color-changing means including a transparent plastic, the examiner notes that mere selection of known materials as recited in claims 6 and 7, on the basis of suitability for the intended use would be entirely obvious. Therefore, it would have been obvious to one of ordinary skill in the art to provide the references with the

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materials recited in the claims in order to use known materials suitable for the intended use. *See in re Leshin, 125 USPQ 416 (CCPA 1960).*

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reid, Mullis, Gordon, Tomonaga and Kamada (5208132). The references disclose the basic inventive concept, substantially as claimed, with the exception of the photochromic layer having a photochromic compound that is included in microcapsules and includes a binder resin. Kamada discloses an organic photochromic compound that is microencapsulated (column 2 lines 30-34) and can be combined with a binder resin (column 5 lines 38-44) for use with a plurality of articles such as toys (column 6 lines 20-27). The photochromic material can also be combined with a dye or pigment (column 8 lines 11-15). It would have been obvious to one of ordinary skill in the art from the teaching of Kamada to modify the coating of the references so as to include microcapsules and binder resin in order to be able to apply a photochromic material to an object that has a high resistance to light when subject to repeated use making it more durable (column 2 lines 22-29).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reid, Mullis, Gordon and Tomonaga. The references disclose the basic inventive concept, substantially as claimed, with the exception of an image arranged inside the sheet-shaped compact. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to include an image because Applicant has not disclosed that an image provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art,

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furthermore, would have expected Applicant's invention to perform equally well without an image because the color-changing means would be able to change the color of the toy while being irradiated with light.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alyssa M. Hylinski whose telephone number is 571-272-2684. The examiner can normally be reached on M-F (8-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AMH

A handwritten signature in black ink, appearing to read 'Eugene Kim', with a stylized flourish at the end.

EUGENE KIM
SUPERVISORY PATENT EXAMINER